



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,415	02/28/2002	Atsushi Isozaki	111925	8710
25944	7590	03/06/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER GRANT II, JEROME	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 03/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Notice of Allowability**

Application No.

10/084,415

Examiner

Jerome Grant II

Applicant(s)

ISOZAKI ET AL.

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an interview conducted Dec. 21, 2006.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

J. Grant II

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Scott Schulte on December 21, 2006.

In the claims:

1 (Amended by the Examiner) A gear changing device, comprising:
a drive motor rotatable in a forward direction or a reverse direction;
a sun gear that is rotated by the drive motor;
a planetary gear that is constantly engaged with the sun gear;
a rotating member that is concentric with the sun gear and rotates in a same direction as the sun gear when the sun gear rotates in the forward direction, so as to pivotally rotate the planetary gear around the sun gear, and that stops rotating when the sun gear rotates in the reverse direction, so as to allow the planetary gear to rotate on an axis of the planetary gear to a plurality of predetermined positions on a path of the

Art Unit: 2625

planetary gear where the planetary gear pivotally rotates, the rotating member being provided on a circumference thereof with a plurality of recesses and projections that are one of indented and protruded in a diametrical direction of the rotating member, the rotating member alternately disposing the recesses and projections, each having a specific width;

a plurality of transmission gears that are engaged with the planetary gear at the predetermined positions on the path of the planetary gear where the planetary gear pivotally rotates; and electronic sensors switch that detects the recesses and the projections at a fixed position.

6. (Amended by the Examiner) a Communication apparatus that performs communication with a remote communication apparatus, comprising:

a gear changing device, including;

a drive motor rotatable in a forward direction or a reverse direction;

a sun gear that is rotated by the drive motor;

a planetary gear that is constantly engaged with the sun gear;

a rotating member that is concentric with the sun gear and rotates in a same direction as the sun gear when the sun gear rotates in the forward direction, so as to pivotally rotate the planetary gear around the sun gear, and that stops rotating when the sun gear rotates in the reverse direction, so as to allow the planetary gear to rotate on an axis of the planetary gear to a plurality of predetermined positions on a path of the planetary gear where the planetary gear pivotally rotates, the rotating member being provided on

Art Unit: 2625

a circumference thereof with a plurality of recesses and projections that are one of indented and protruded in a diametrical direction of the rotating member, the rotating member alternately disposing the recesses and projections, each having a specific width;

a plurality of transmission gears that are engaged with the planetary gear at the predetermined positions on the path of the planetary gear where the planetary gear pivotally rotates; and electronic sensor switch that detects the recesses and the projections at a fixed position; and wherein the communication apparatus includes at least a transmission mode and a reception mode in association with the transmission gears.

Claim 18 (New) The gear changing device according to claim 1, wherein the electronic sensor switch sends an ON level signal or an OFF level signal.

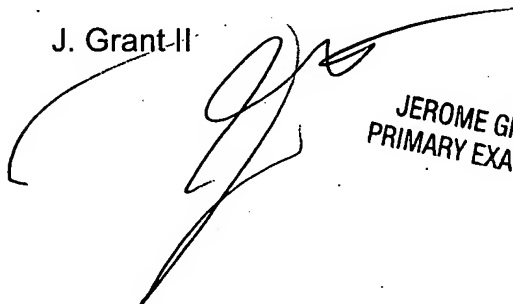
Claim 19 (New) The communication apparatus according to claim 6, wherein the electronic sensor switch sends an ON level signal or an OFF level signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 571-272-7463. The examiner can normally be reached on Mon.-Thurs. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore, can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Grant-II



JEROME GRANT
PRIMARY EXAMINER